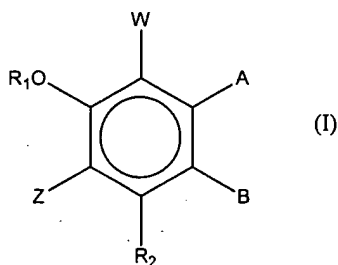


1. A method for the treatment or prophylaxis, amelioration, defense against, and/or prevention of menopausal syndrome, osteoporosis; premenstrual syndrome; male impotence; Reynaud's Syndrome; Reynaud's Phenomenon; Buerger's Disease; coronary artery spasm; migraine headaches; hypertension, benign prostatic hypertrophy; breast cancer; uterine cancer; ovarian cancer; testicular cancer; large bowel cancer, endometrial cancer; prostatic cancer; leukemia; arteriosclerosis; Alzheimer's disease; inflammatory diseases; rheumatic diseases; acne; baldness; psoriasis and/or diseases associated with oxidant stress comprising administering to a subject a therapeutically effective amount of at least one compound of the formula I:



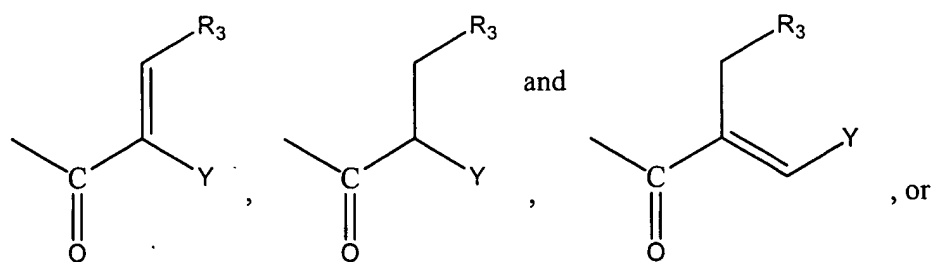
wherein

Z is H,

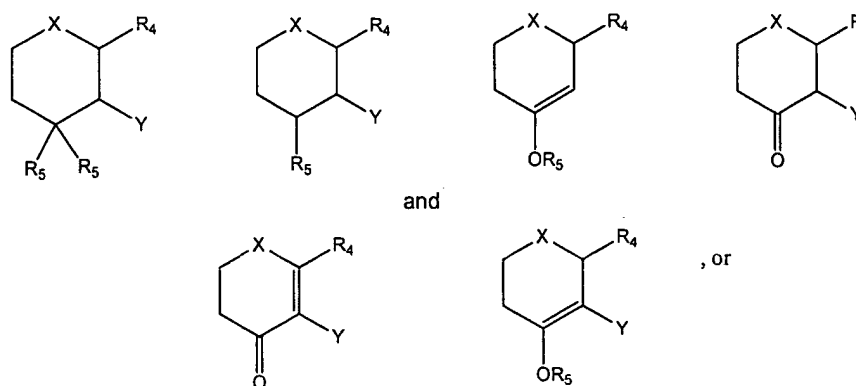
R<sub>1</sub> is H, or R<sub>A</sub>CO where R<sub>A</sub> is C<sub>1-10</sub> alkyl or an amino acid,

R<sub>2</sub> is H, OH, or OR<sub>B</sub> where R<sub>B</sub> is an amino acid or COR<sub>A</sub> where R<sub>A</sub> is C<sub>1-10</sub> alkyl or an amino acid,

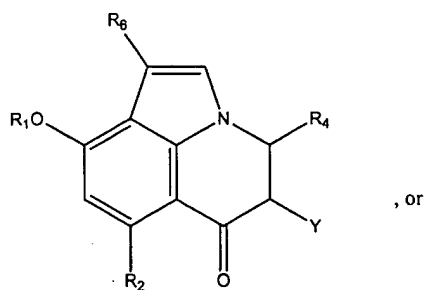
W is H, A is H or OH, and B is selected from



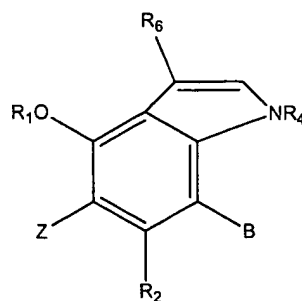
W is H, and A and B taken together form a six membered ring selected from



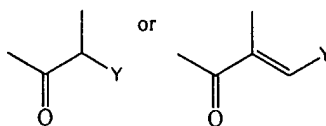
W, A and B taken with the groups with which they are associated comprise



W and A taken together with the groups with which they are associated comprise



and B is



wherein

$R_3$  is H,  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,  $CO_2R_C$

where  $R_C$  is  $C_{1-10}$  alkyl, or

$COR_B$  where  $R_B$  is an amino acid or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,

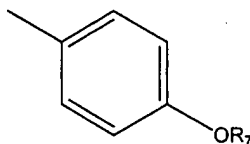
$R_4$  is H,  $COR_D$  where  $R_D$  is H, OH,  $C_{1-10}$  alkyl or an amino acid,  $CO_2R_C$  where  $R_C$  is  $C_{1-10}$  alkyl,  $COR_E$  where  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,  $COOH$ ,  $COR_C$  where  $R_C$  is  $C_{1-10}$  alkyl, or  $CONHR_E$ , where  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,

$R_5$  is H,  $CO_2R_C$  where  $R_C$  is  $C_{1-10}$  alkyl, or  $COR_COR_E$  where  $R_C$  is  $C_{1-10}$  alkyl and  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid, and with the proviso that where the two  $R_5$  groups are attached to the same group they are identical or different,

$R_6$  is H or hydroxy  $C_{1-10}$  alkyl,

X is O, N or S, and

Y is



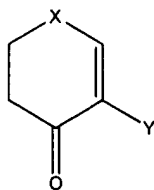
where  $R_7$  is H, or  $C_{1-10}$  alkyl

with the proviso that compounds of the formula I where

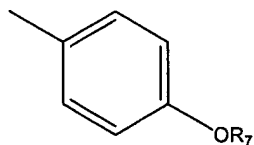
$R_1$ , W and Z are H

$R_2$  is H or OH

A and B taken together are a six membered ring



wherein Y is



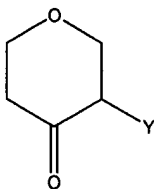
and R<sub>7</sub> is H or CH<sub>3</sub>,

are excluded, and

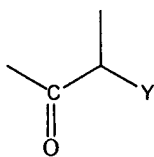
with the proviso that where the method is a method for the treatment or prophylaxis of menopausal syndrome or premenstrual syndrome compounds of the formula I where

R<sub>1</sub>, W and Z are H, and R<sub>2</sub> is H or OH,

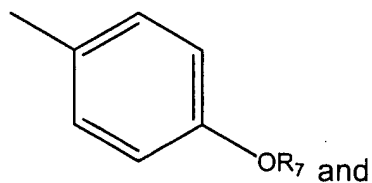
A and B taken together are a six membered ring



or A is OH and B is



where Y is

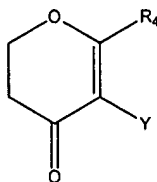


$R_7$  is H are excluded, and

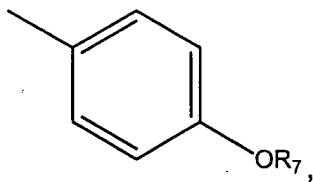
with the proviso that where the method is a method for treatment of a form of cancer or rheumatoid arthritis compounds of the formula I where:

$R_1$  and W are H, Z is H or  $OCH_3$  and  $R_2$  is H or OH, and

A and B taken together are a six membered ring of the formula

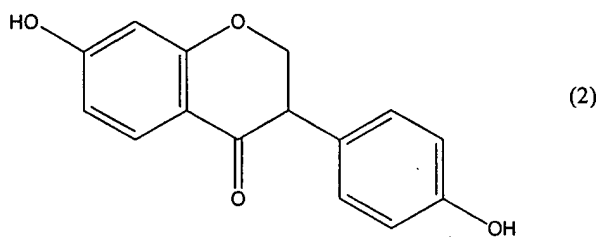
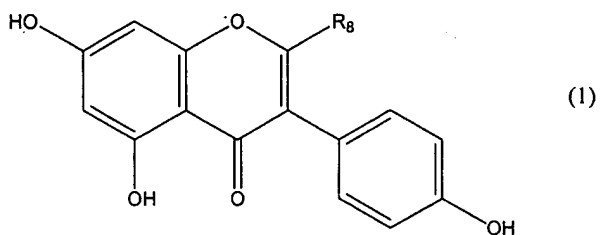


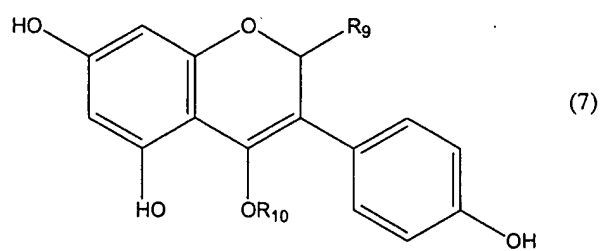
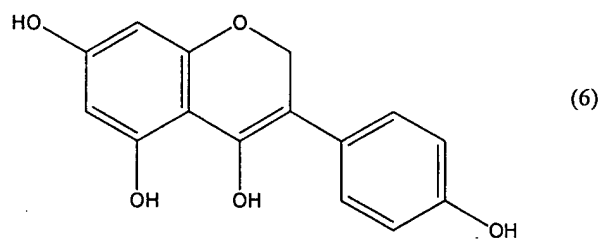
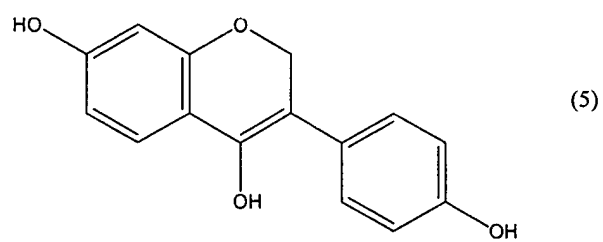
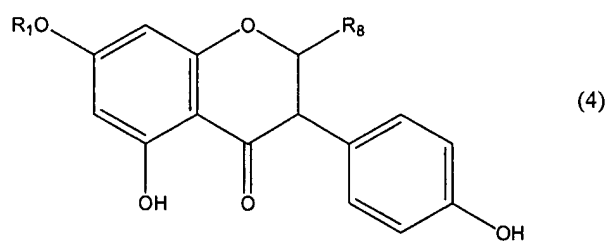
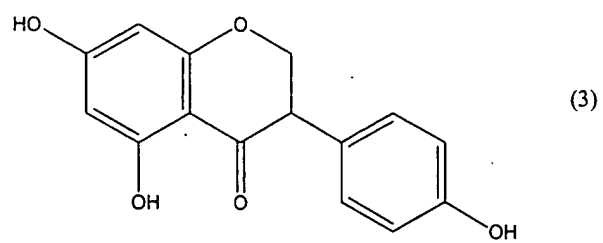
Y is

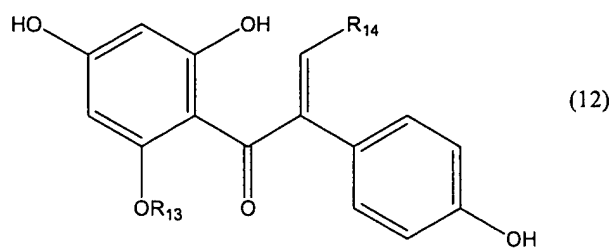
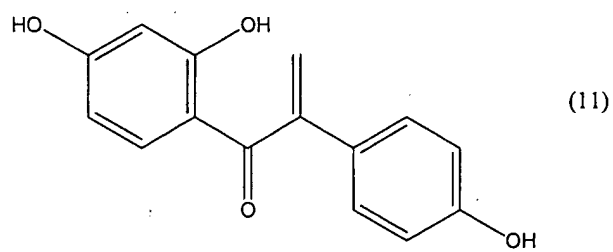
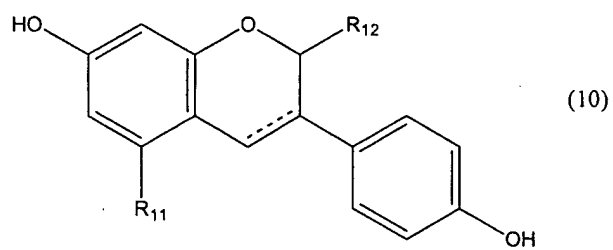
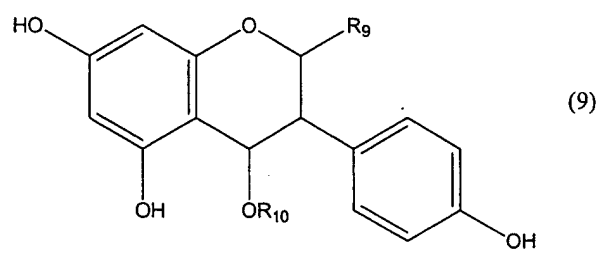
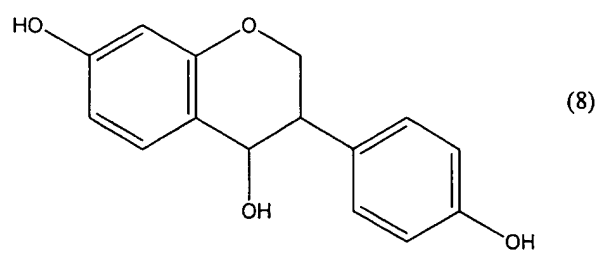


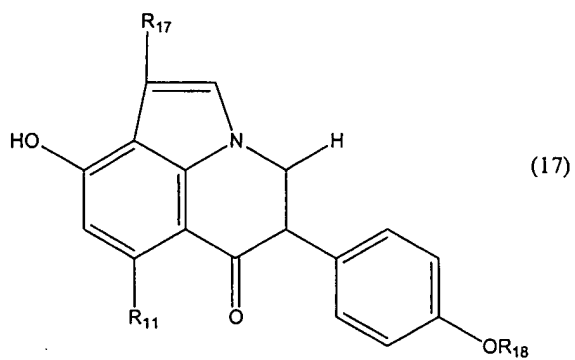
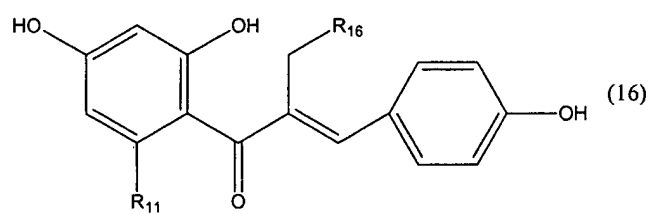
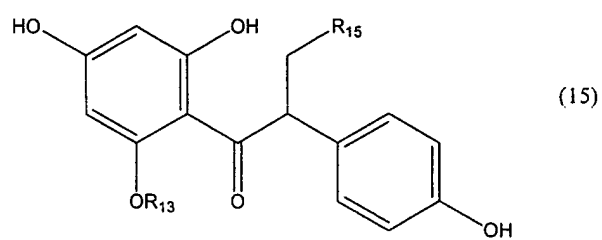
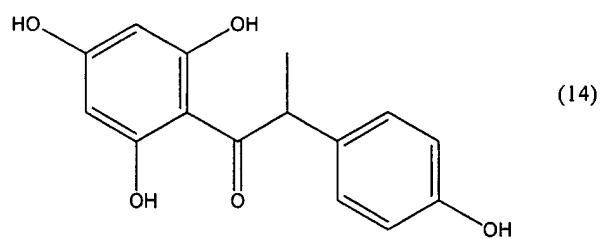
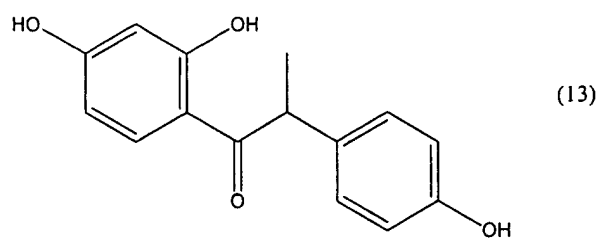
$R_4$  is  $CO_2H$  or  $CO_2CH_2CH_3$ , and  $R_7$  is H are excluded.

2. A method according to claim 1 wherein said at least one compound of the formula I is:

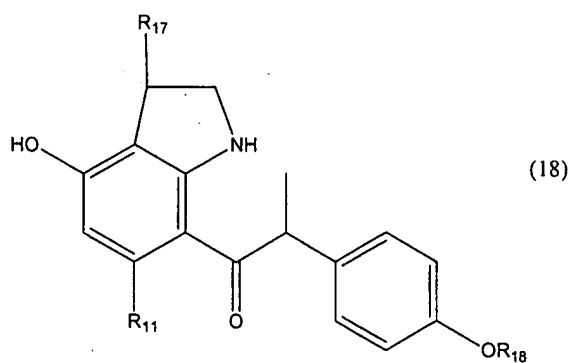




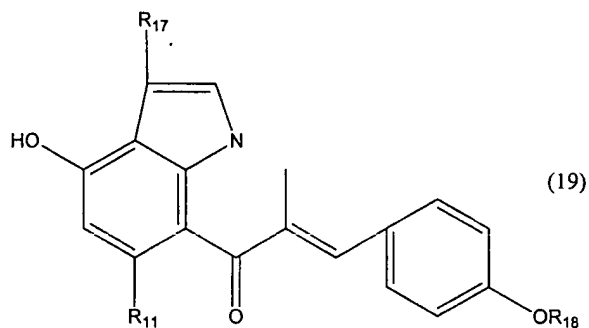








or,



wherein

$R_8$  is  $COR_D$  where  $R_D$  is H, OH,  $C_{1-10}$  alkyl or an amino acid,

$R_9$  is  $CO_2R_C$  or  $COR_E$  where  $R_C$  is  $C_{1-10}$  alkyl and  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,

$R_{10}$  is  $COR_C$  or  $COR_COR_E$  where  $R_C$  is  $C_{1-10}$  alkyl and  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,

$R_{11}$  is H or OH,

$R_{12}$  is H, COOH,  $CO_2R_C$  where  $R_C$  is  $C_{1-10}$  alkyl, or  $CONHR_E$  where  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,

$R_{13}$  is OH,  $OR_B$  where  $R_B$  is an amino acid or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid, or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,

$R_{14}$  is H, or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,

$R_{15}$  is  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,

$R_{16}$  is H,  $COR_B$  or  $CO_2R_C$  where  $R_B$  is an amino acid or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid and  $R_C$  is  $C_{1-10}$  alkyl,

$R_{17}$  is H or hydroxy  $C_{1-10}$  alkyl,

$R_{18}$  is H or  $C_{1-10}$  alkyl,

and “—” represents either a single bond or double bond.

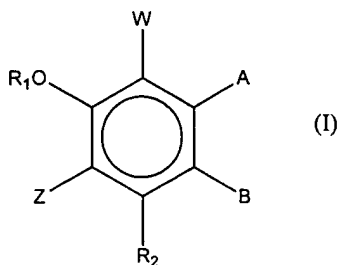
3. A method according to claim 2, wherein said method is a method for the treatment of menopausal syndrome, hypertension, arteriosclerosis, male impotence, or premenstrual syndrome, further wherein at least one compound of the formulae 1, 3, 8, 10, 11, 13 and 14 is administered to a subject in need thereof, together with a pharmaceutically acceptable carrier or excipient.

4. A method according to claim 2, wherein said method is a method for the treatment of breast, ovarian, testicular, uterine, large bowel, leukemia, endometrial, or prostatic cancer wherein at least one compound of the formulae 1, 8, 10, 11, 13 and 14

is administered to a subject in need thereof, together with a pharmaceutically acceptable carrier or excipient.

5. A method according to claim 2, wherein said method is a method for a disease associated with oxidant stress selected from the group consisting of cancer, myocardial infarction, stroke, arthritis and cataracts comprising administering to a subject in need thereof at least one compound of the formulae 1, 3, 8, 10, 13 and 14 together with a pharmaceutically acceptable carrier and/or excipient.

6. A composition for the treatment, amelioration, defense against, prophylaxis and/or prevention of menopausal syndrome; osteoporosis; premenstrual syndrome; male impotence; Reynaud's Syndrome; Reynaud's Phenomenon; Buerger's Disease; coronary artery spasm; migraine headaches; osteoporosis, hypertension, benign prostatic hypertrophy, breast cancer, uterine cancer; ovarian cancer, testicular cancer; large bowel cancer; endometrial cancer; prostatic cancer; leukemia; arteriosclerosis; inflammatory diseases; rheumatic diseases; acne; baldness; psoriasis and/or diseases associated with oxidant stress, comprising at least one acceptable carrier and/or excipient, and at least one compound of the formula I:



wherein

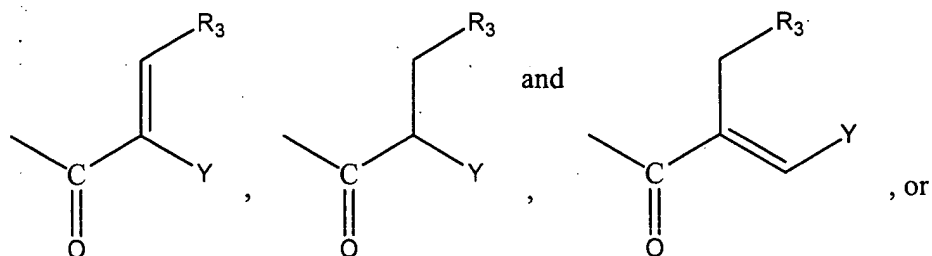
Z is H,

R<sub>1</sub> is H, or R<sub>A</sub>CO where R<sub>A</sub> is C<sub>1-10</sub> alkyl or an amino acid,

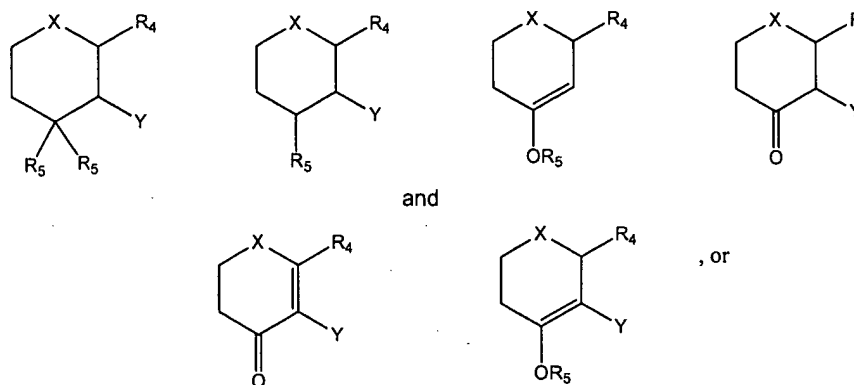
R<sub>2</sub> is H, OH, or OR<sub>B</sub> where R<sub>B</sub> is an amino acid or COR<sub>A</sub> where R<sub>A</sub>

is C<sub>1-10</sub> alkyl or an amino acid,

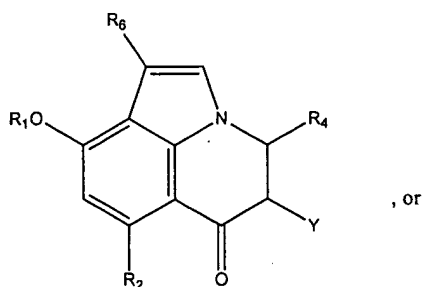
W is H, A is H or OH, and B is selected from



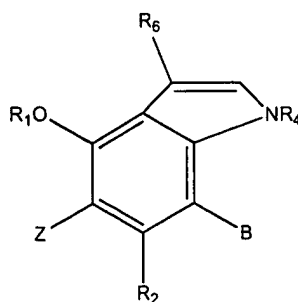
W is H, and A and B taken together form a six membered ring selected from



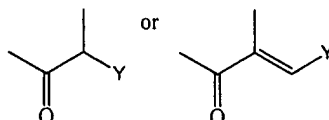
W, A and B taken with the groups with which they are associated comprise



W and A taken together with the groups with which they are associated comprise



and B is



wherein

$R_3$  is H,  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,  $CO_2R_C$  where  $R_C$  is  $C_{1-10}$  alkyl, or

$COR_B$  where  $R_B$  is an amino acid or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,

$R_4$  is H,  $COR_D$  where  $R_D$  is H, OH,  $C_{1-10}$  alkyl or an amino acid,  $CO_2R_C$  where  $R_C$  is  $C_{1-10}$  alkyl,  $COR_E$  where  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid, COOH,  $COR_C$  where  $R_C$  is  $C_{1-10}$  alkyl, or  $CONHR_E$ , where  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,

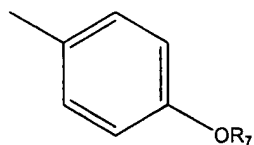
$R_5$  is H,  $CO_2R_C$  where  $R_C$  is  $C_{1-10}$  alkyl, or

$COR_COR_E$  where  $R_C$  is  $C_{1-10}$  alkyl and  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid, and with the proviso that where the two  $R_5$  groups are attached to the same group they are identical or different,

$R_6$  is H or hydroxy  $C_{1-10}$  alkyl,

X is O, N or S, and

Y is



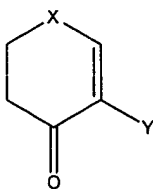
where  $R_7$  is H or  $C_{1-10}$  alkyl

with the proviso that compounds of the formula I where

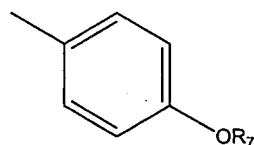
$R_1$ , W and Z are H

$R_2$  is H or OH

A and B taken together are a six membered ring



wherein Y is



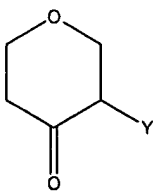
and  $R_7$  is H or  $CH_3$ ,

are excluded, and

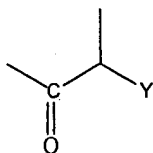
with the proviso that where the composition is for treatment or prophylaxis of menopausal syndrome or premenstrual syndrome, then compounds of the formula I where

$R_1$ , W and Z are H, and  $R_2$  is H or OH,

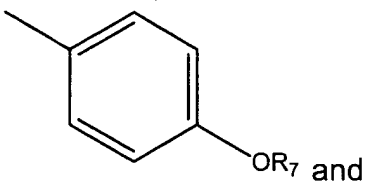
A and B taken together are a six membered ring



or A is OH and B is



where Y is

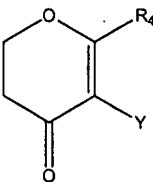


R<sub>7</sub> is H, are excluded, and

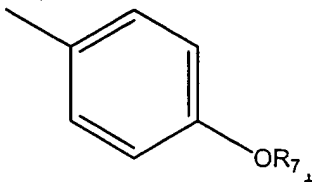
with the proviso that where the composition is for treatment of a form of cancer or rheumatoid arthritis, then compounds of the formula I where

R<sub>1</sub> and W are H, Z is H or OCH<sub>3</sub> and R<sub>2</sub> is H or OH, and

A and B taken together are a six membered ring of the formula

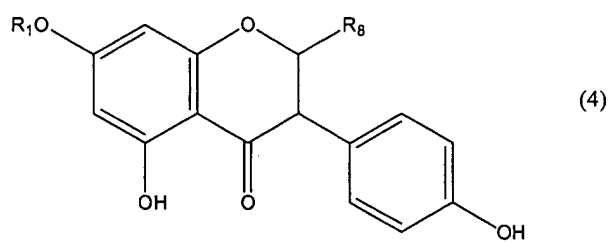
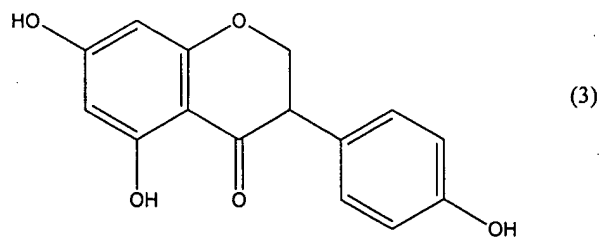
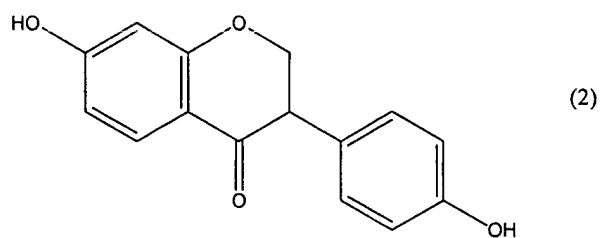
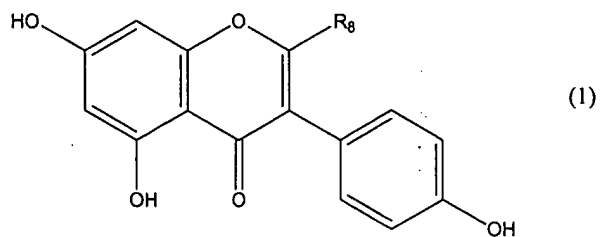


Y is

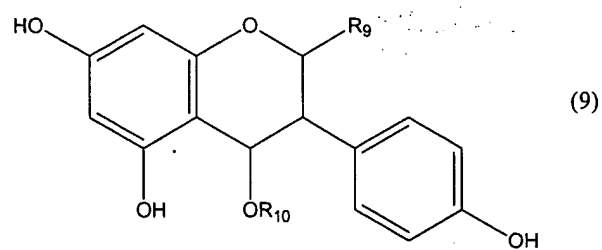
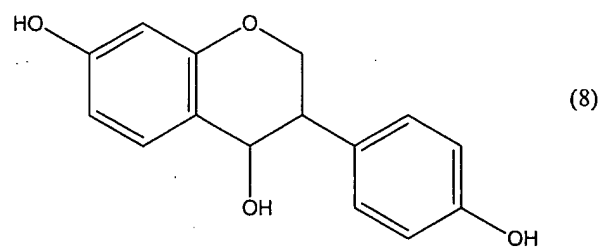
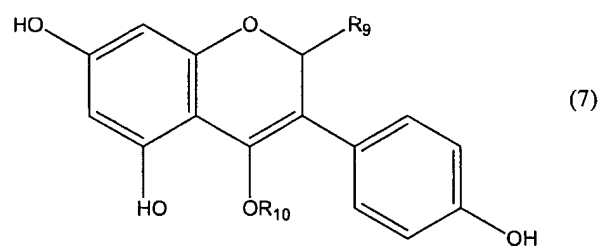
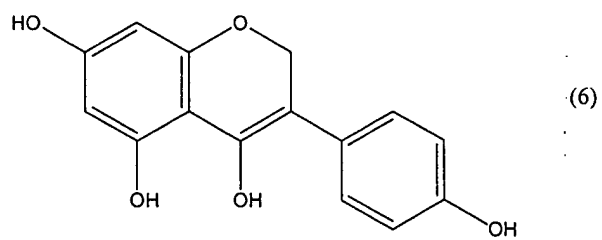
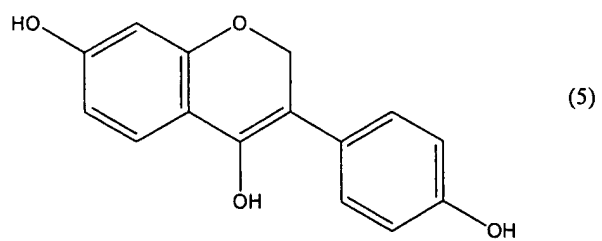


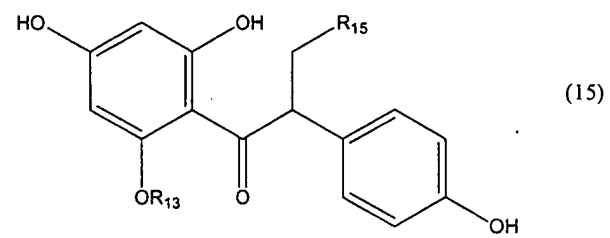
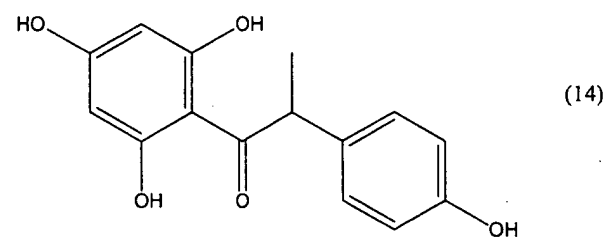
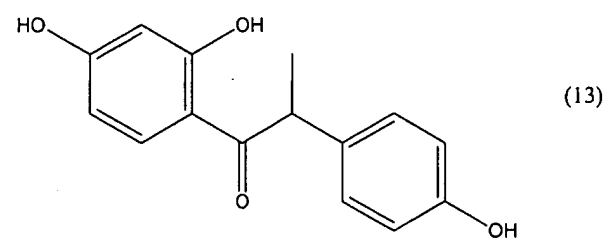
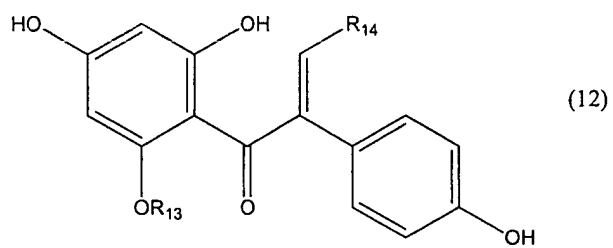
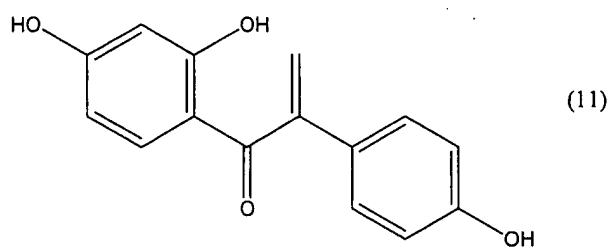
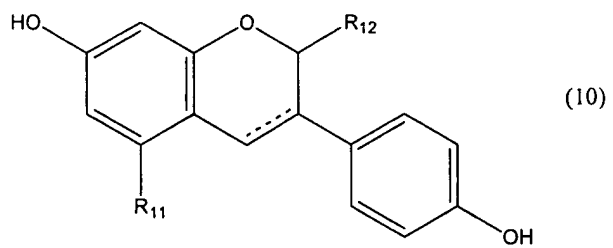
R<sub>4</sub> is CO<sub>2</sub>H or CO<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, and R<sub>7</sub> is H are excluded.

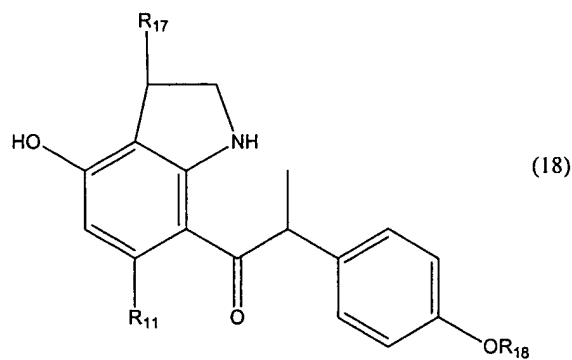
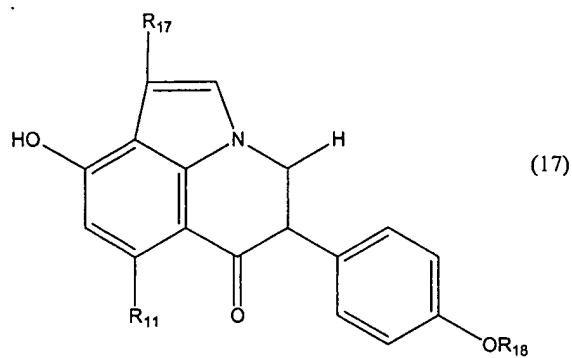
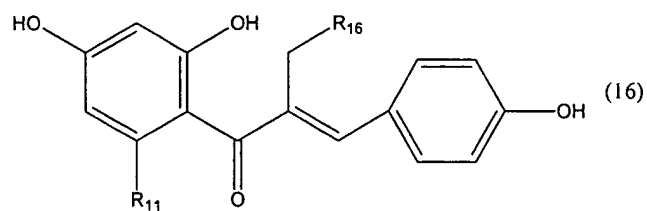
7. A composition according to claim 6, wherein said at least one compound of formula I is:



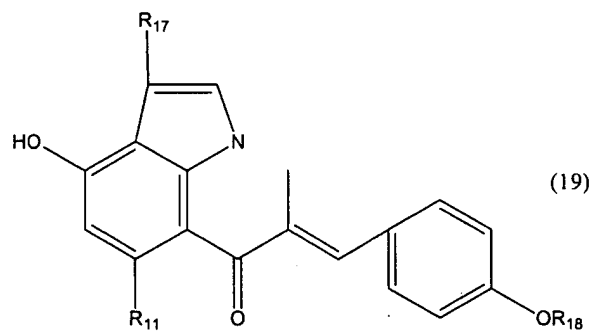








or,



wherein

$R_8$  is  $COR_D$  where  $R_D$  is H, OH,  $C_{1-10}$  alkyl or an amino acid,

$R_9$  is  $CO_2R_C$  or  $COR_E$  where  $R_C$  is  $C_{1-10}$  alkyl and  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,

$R_{10}$  is  $COR_C$  or  $COR_COR_E$  where  $R_C$  is  $C_{1-10}$  alkyl and  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,

$R_{11}$  is H or OH,

$R_{12}$  is H, COOH,  $CO_2R_C$  where  $R_C$  is  $C_{1-10}$  alkyl, or  $CONHR_E$  where  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,

$R_{13}$  is OH,  $OR_B$  where  $R_B$  is an amino acid or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid, or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,

$R_{14}$  is H, or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,

$R_{15}$  is  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,

$R_{16}$  is H,  $COR_B$  or  $CO_2R_C$  where  $R_B$  is an amino acid or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid and  $R_C$  is  $C_{1-10}$  alkyl,

$R_{17}$  is H or hydroxy  $C_{1-10}$  alkyl,

$R_{18}$  is H or  $C_{1-10}$  alkyl,

and "—" represents either a single bond or a double bond.

10. A composition according to claim 6, wherein said at least one acceptable carrier and/or excipient is at least one pharmaceutically acceptable carrier and/or excipient.

11. A composition according to claim 7 wherein said at least one acceptable carrier and/or excipient is at least one pharmaceutically acceptable carrier and/or excipient.

13. A composition according to claim 6, wherein said at least one acceptable carrier and/or excipient is at least one physiologically and/or cosmetically acceptable carrier and/or excipient.

14. A composition according to claim 13, further comprising vitamin E.

15. A composition according to claim 7, further comprising vitamin E, and wherein said at least one acceptable carrier and/or excipient is at least one physiologically and/or cosmetically acceptable carrier and/or excipient.

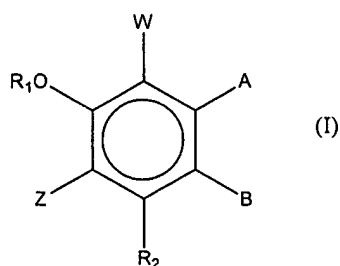
16. A composition according to claim 13 in the form of a skin cream or gel.

17. A composition according to claim 13 in the form of a solid dosage unit.

19. A composition according to claim 6, in the form of a food stuff or drink.

20. A composition according to claim 7, in the form of a food stuff or drink.

21. A microorganism which produces at least one compound of the formula I:



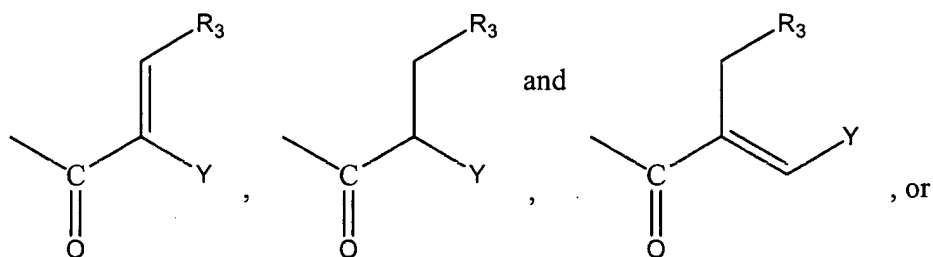
wherein

Z is H,

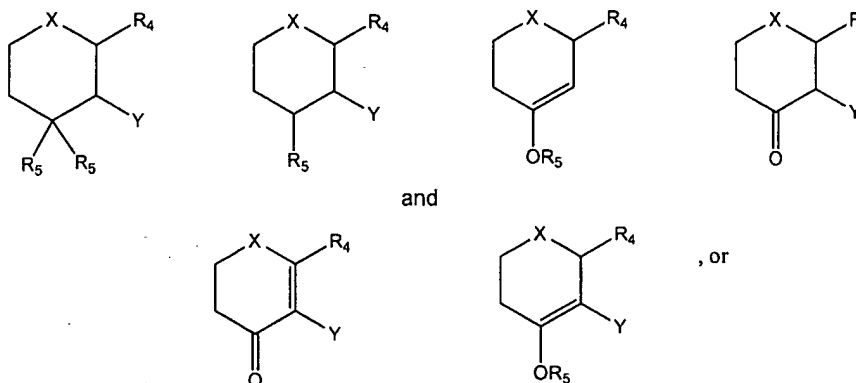
R<sub>1</sub> is H, or R<sub>A</sub>CO where R<sub>A</sub> is C<sub>1-10</sub> alkyl or an amino acid,

R<sub>2</sub> is H, OH, or OR<sub>B</sub> where R<sub>B</sub> is an amino acid or COR<sub>A</sub> where R<sub>A</sub> is C<sub>1-10</sub> alkyl or an amino acid,

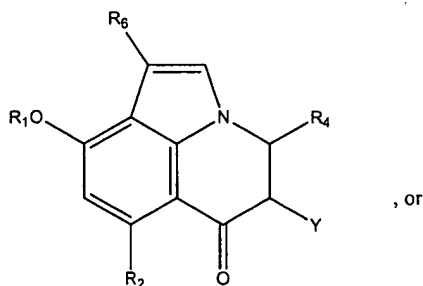
W is H, A is H or OH, and B is selected from



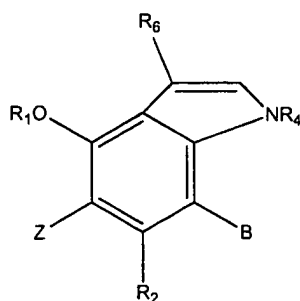
W is H, and A and B taken together form a six membered ring selected from



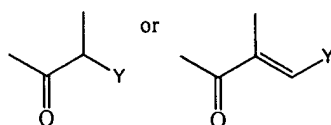
W, A and B taken with the groups with which they are associated comprise



W and A taken together with the groups with which they are associated comprise



and B is



wherein

$R_3$  is H,  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,  $CO_2R_C$  where  $R_C$  is  $C_{1-10}$  alkyl, or

$COR_B$  where  $R_B$  is an amino acid or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,

$R_4$  is H,  $COR_D$  where  $R_D$  is H, OH,  $C_{1-10}$  alkyl or an amino acid,  $CO_2R_C$  where  $R_C$  is  $C_{1-10}$  alkyl,  $COR_E$  where  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid, COOH,  $COR_C$  where  $R_C$  is  $C_{1-10}$  alkyl, or  $CONHR_E$ , where  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,

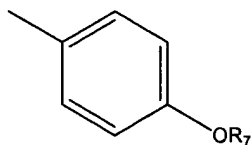
$R_5$  is H,  $CO_2R_C$  where  $R_C$  is  $C_{1-10}$  alkyl, or

$COR_COR_E$  where  $R_C$  is  $C_{1-10}$  alkyl and  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid, and with the proviso that where the two  $R_5$  groups are attached to the same group they are identical or different,

$R_6$  is H or hydroxy  $C_{1-10}$  alkyl,

X is O, N or S, and

Y is



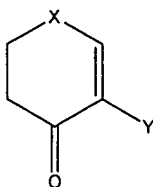
where  $R_7$  is H or  $C_{1-10}$  alkyl

with the proviso that said at least one compound of the formula I where

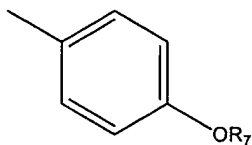
$R_1$ , W and Z are H

$R_2$  is H or OH

A and B taken together are a six membered ring



wherein Y is



and  $R_7$  is H or  $CH_3$ ,

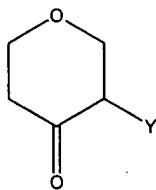
is excluded, and

with the proviso that where the microorganism produces a compound for treatment or prophylaxis of menopausal syndrome or premenstrual syndrome, then said at least one compound of the formula I where

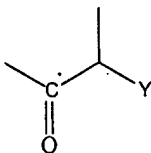
$R_1$ , W and Z are H, and  $R_2$  is H or OH,

A and B taken together are a six membered ring

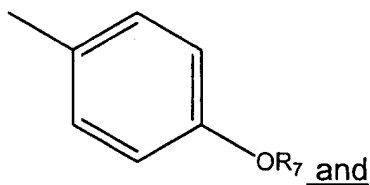




or A is OH and B is



where Y is

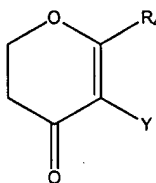


$R_7$  is H is excluded, and

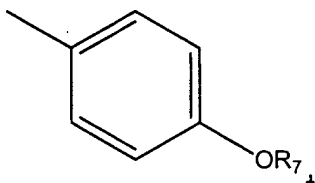
with the proviso that where the microorganism produces a compound for treatment of a form of cancer or rheumatoid arthritis, then said at least one compound of the formula I where

$R_1$  and W are H, Z is H or  $OCH_3$  and  $R_2$  is H or OH, and

A and B taken together are a six membered ring of the formula

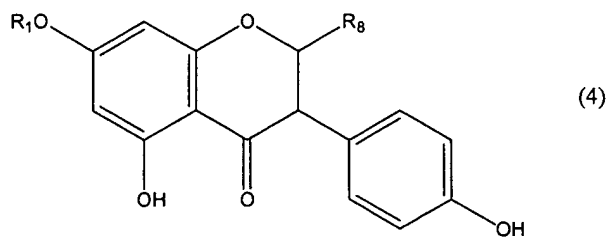
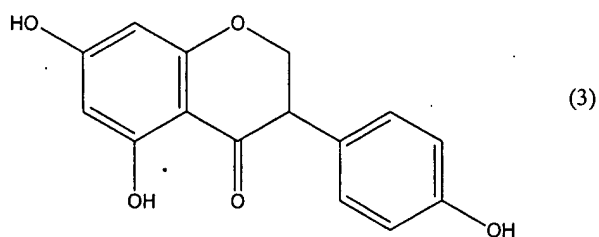
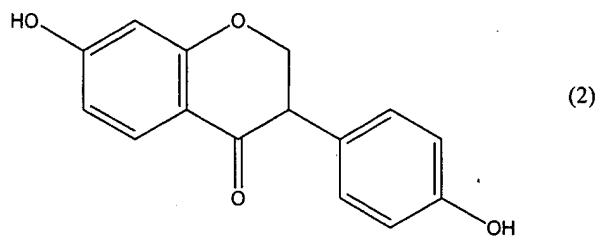
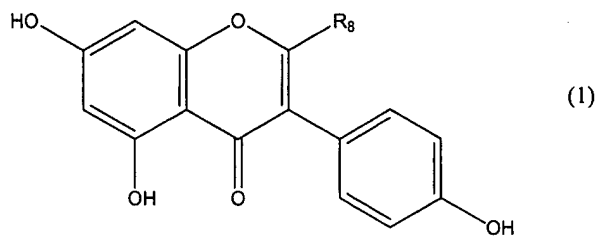


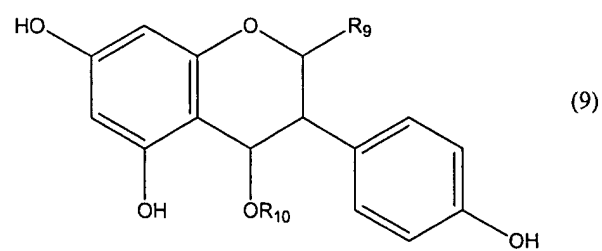
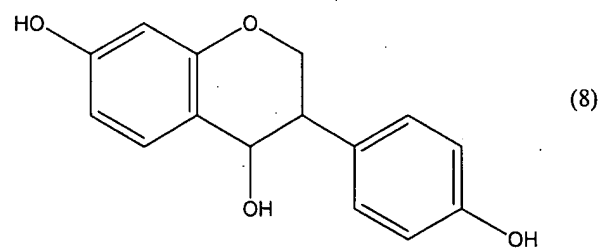
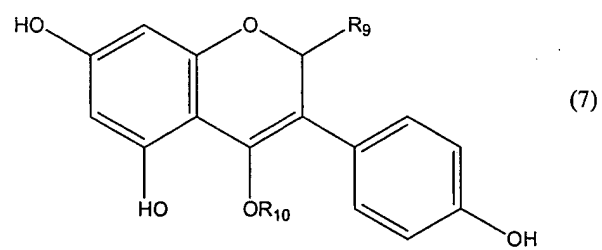
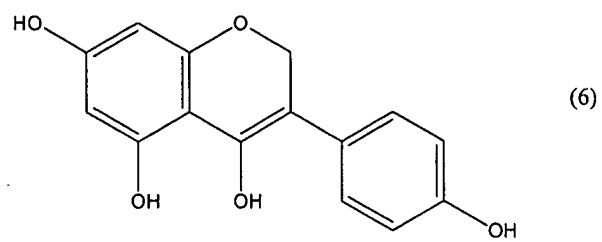
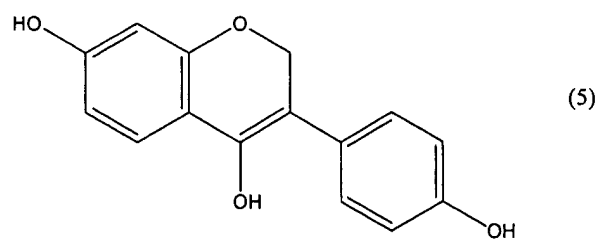
Y is

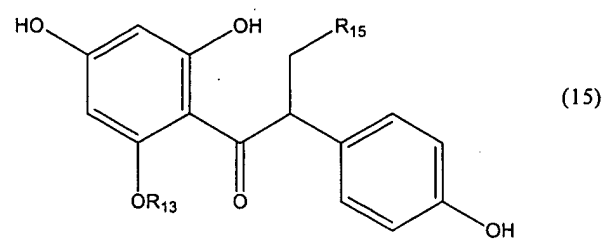
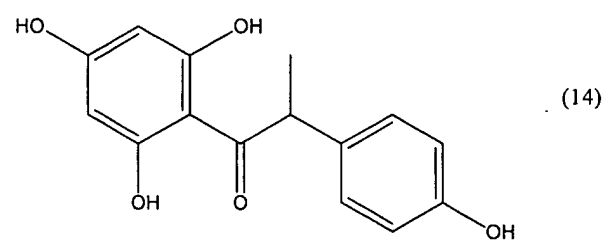
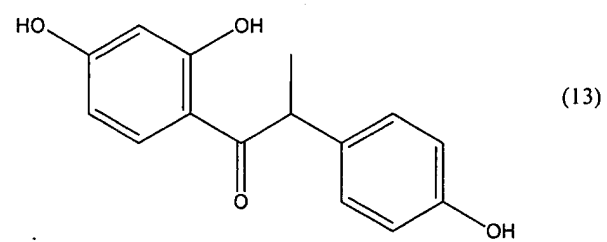
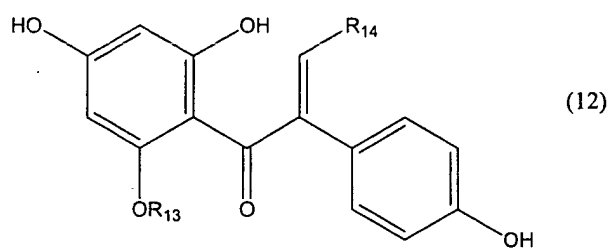
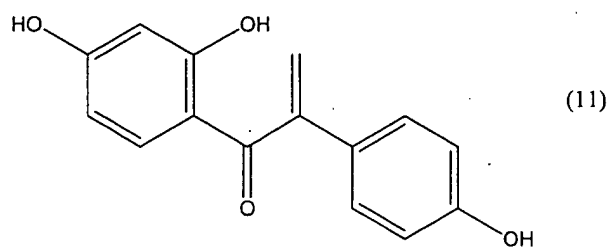
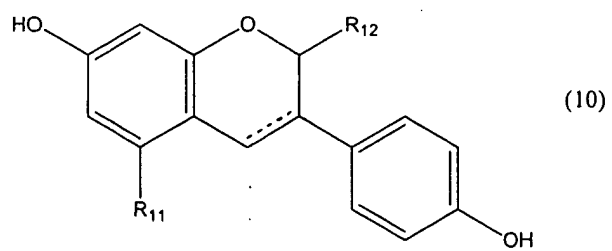


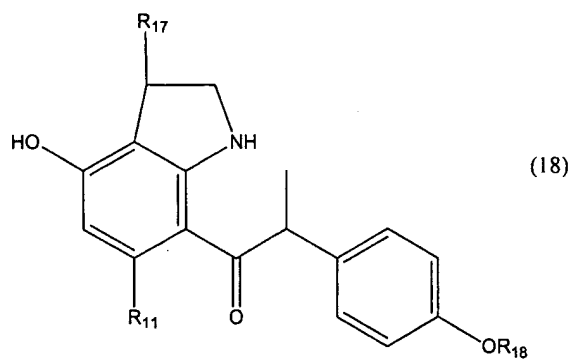
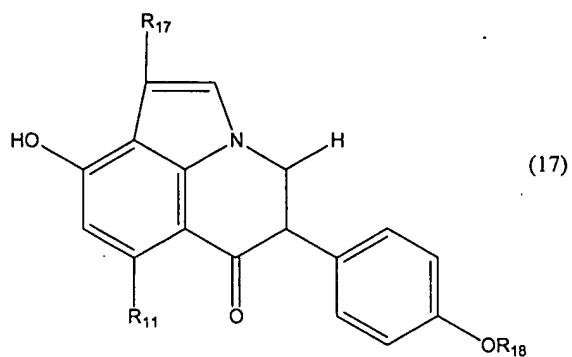
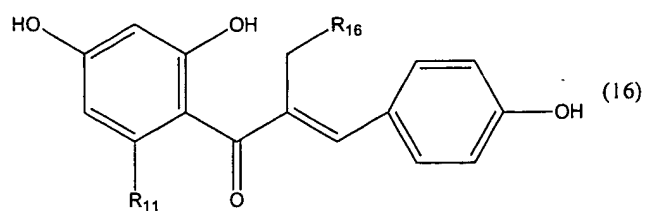
$R_4$  is  $\text{CO}_2\text{H}$  or  $\text{CO}_2\text{CH}_2\text{CH}_3$ , and  $R_7$  is H is excluded.

22. A microorganism according to claim 21 wherein said at least one compound of the formula I is:

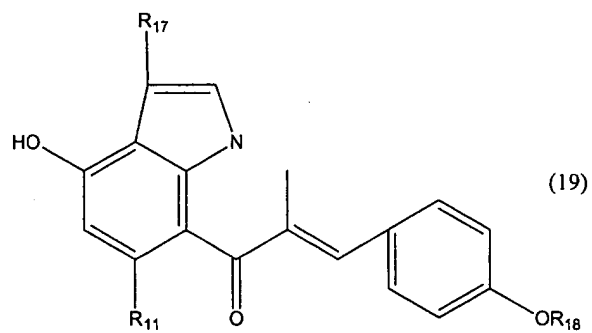








or,



wherein

$R_8$  is  $COR_D$  where  $R_D$  is H, OH,  $C_{1-10}$  alkyl or an amino acid,

$R_9$  is  $CO_2R_C$  or  $COR_E$  where  $R_C$  is  $C_{1-10}$  alkyl and  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,

$R_{10}$  is  $COR_C$  or  $COR_COR_E$  where  $R_C$  is  $C_{1-10}$  alkyl and  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,

$R_{11}$  is H or OH,

$R_{12}$  is H, COOH,  $CO_2R_C$  where  $R_C$  is  $C_{1-10}$  alkyl, or  $CONHR_E$  where  $R_E$  is H,  $C_{1-10}$  alkyl or an amino acid,

$R_{13}$  is OH,  $OR_B$  where  $R_B$  is an amino acid or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid, or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,

$R_{14}$  is H, or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,

$R_{15}$  is  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid,

$R_{16}$  is H,  $COR_B$  or  $CO_2R_C$  where  $R_B$  is an amino acid or  $COR_A$  where  $R_A$  is  $C_{1-10}$  alkyl or an amino acid and  $R_C$  is  $C_{1-10}$  alkyl,

$R_{17}$  is H or hydroxy  $C_{1-10}$  alkyl,

$R_{18}$  is H or  $C_{1-10}$  alkyl,

and "—" represents either a single bond or a double bond.

23. A microbial culture or a food stuff comprising at least one microbial strain and at least one microorganism as defined in claim 21.

24. A microbial culture or a food stuff comprising at least one microbial strain further and at least one microorganism as defined in claim 22.

25. A method according to claim 1, wherein said menopausal syndrome is hot flushes, anxiety and depression, mood swings, night sweats, headaches, and urinary incontinence or a combination thereof; wherein said premenstrual syndrome is fluid retention and cyclical mastalgia, dysmenorrhoea, or a combination thereof; wherein said inflammatory diseases are inflammatory bowel disease, ulcerative colitis, Crohns disease, or a combination thereof; wherein said rheumatic disease is rheumatoid arthritis; wherein said baldness is male pattern baldness; and wherein said psoriasis and/or diseases associated with oxidant stress are cancer, myocardial infarction, stroke, arthritis, sunlight induced skin damage, cataracts, or a combination thereof.

26. A method according to claim 1, wherein said X is O.